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What Are Tolerance Breaks and Why Do Young Adults Take Them? A Qualitative Investigation of Temporary Abstinence Breaks from Cannabis

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ABSTRACT

Objective: This study investigated young adults' (YAs) experiences with tolerance breaks (temporary abstinence from cannabis; T-breaks). **Method:** In Study 1, 15 YAs who used cannabis completed a qualitative interview. In Study 2, 66 YAs who used cannabis at least 2x/week completed online survey items assessing T-break familiarity, definitions, motivations, and experiences. Data were analyzed using qualitative thematic analysis. **Results:** In Study 1, five themes were identified: (1) time frames for T-breaks were variable but brief and temporary, (2) T-breaks were motivated by tolerance reduction (3) and other motives, (4) withdrawal is an early barrier; positive outcomes occurred with longer breaks, (5) some YAs viewed T-breaks as unnecessary/unachievable. Study 2 findings demonstrated that YAs were familiar with T-breaks and most had attempted a T-break in the past year; greater variability in T-break motivations was apparent in Study 2. **Conclusions:** Results suggest that YAs define T-breaks as an intentional and temporary period of abstinence from cannabis, regardless of motivation.

Key words: cannabis; young adults; tolerance breaks; temporary abstinence; qualitative

Among young adults (YAs), rates of daily and near-daily cannabis use have nearly doubled in the past decade, and daily use is at historically high levels (Patrick et al., 2022). Among college students, 4.7% report cannabis use 20 or more days per month, and for their same age non-college peers, this rate is tripled, with 14.5% using at this frequency (Patrick et al., 2023). Further, YAs aged 18-25 have the highest rates of cannabis use disorder (CUD) compared to other age groups (SAMHSA, 2020). Regular cannabis use is associated with numerous harms, including poorer mental health (Leadbeater et al., 2019), worse academic outcomes for those in school (Arria et al., 2015, 2016; Suerken et al., 2016), and worse occupational outcomes (Thompson et al., 2019). Although many people who use cannabis believe they can quit on their own without formal intervention (Ellingstad et al., 2006; Weiner et al., 1999), frequent and heavy cannabis use is a particularly difficult behavior to change. Attempts to quit or reduce use tend to be short-lived (Buckner et al., 2013; Hughes et al., 2016; Shrier et al., 2018), and the desire to quit cannabis

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is typically low among YAs (Ramo et al., 2012). Although YAs tend not to seek or perceive a need for formal treatment (SAMHSA, 2020), many are turning to the internet to find other ways to reduce cannabis-related harms.

Tolerance breaks ("T-breaks") may be one possible harm reduction strategy to help YAs decrease cannabis-related harms. T-breaks are commonly referenced on the internet as a strategy to decrease cannabis use and tolerance by temporarily abstaining among people who engage in regular cannabis use, without the pressure or finality of a quit attempt (Dugar, 2022; Goldstein, 2023; Hemraj, n.d.; Weedmaps, 2020). Specifically, major pro-cannabis websites have published articles encouraging T-breaks, claiming, for example, that T-breaks "offer plentiful benefits with little effort" and are "a good strategy for minimizing the risks of consuming too much [*cannabis*]" (Weedmaps, 2020). Some articles state T-breaks are effective in as little as 24 to 48 hours, while others recommend at least 21 days (Dugar, 2022; Goldstein, 2023; Hemraj, n.d.; Weedmaps, 2020). College health and wellness centers are also promoting the use of T-break self-help guides, which use motivational interviewing and relapse prevention principles to provide psychoeducation and tips on how to manage common issues that can occur during a break, including craving, sleep disturbances, and boredom (Fontana, n.d.; Moore, n.d.). These approaches show promise as a harm reduction strategy, as initial pilot work testing one of these T-break guides indicates that YAs are interested in and seriously committed to taking T-breaks and benefit from T-break-specific resources (Fontana et al., 2023).

Temporary abstinence fits within harm reduction, relapse prevention, and transtheoretical frameworks of behavior change (Marlatt et al., 2012; Marlatt & Donovan, 2005; Prochaska & Velicer, 1997) and there is an emerging literature supporting temporary abstinence as a reasonable harm reduction goal for other substances. For alcohol (e.g., "Dry January"), individuals who participated in 30-day abstinence from alcohol challenges demonstrated decreases in drinking frequency post-break and endorsed other break-related benefits, such as improved sleep, regardless of whether abstinence was maintained for the full 30 days (De Visser & Nicholls, 2020; De Visser & Piper, 2020). Tobacco/nicotine-focused "practice quit attempts" increased self-efficacy for change while also increasing motivation to change smoking behaviors among 30% of the sample (Keizer et al., 2016, 2020). Moreover, nearly 20% of individuals spontaneously decided to quit smoking during their practice quit attempt. Thus, temporary abstinence could reduce acute harms associated with regular use and help people learn skills to practice and prepare for more permanent changes when ready (Cox et al., 2022).

Yet, despite the popularity and initial support for guided T-breaks and temporary abstinence from other substances, there have been few empirical studies on temporary abstinence from cannabis specifically. In one study of temporary abstinence among YAs, researchers used online website articles to develop the following definition of a T-break: "An intentional and temporary period of abstinence from cannabis with the primary goal of reducing tolerance levels so that a smaller amount of cannabis is needed to achieve the same high when use is resumed" (Ansell et al., 2023). They found participants who took a T-break with the sole motivation of reducing tolerance experienced *increases* in hazardous cannabis use and disorder symptoms 6 months later (Ansell et al., 2023). However, among individuals who took breaks for other reasons (e.g., relationship reasons, starting a new job, upcoming drug test), longer breaks were associated with decreases in hazardous use and symptoms. Yet, YAs may conceptualize reasons for taking T-breaks more broadly or in a multifaceted way, as indicated in online forums and blog posts about T-breaks (see example Reddit posts; krazecam, 2021; officialkfc, 2021; petewentzisgod, 2024). Taken together, preliminary research suggests motives for breaks are differentially associated with outcomes, whereas online cannabis communities may have a broader conceptualization of T-breaks, beyond tolerance reduction alone.

Present Study

T-breaks are a well-known phenomenon online and among cannabis communities; however, the empirical literature assessing these experiences lags behind. As little is known about

T-breaks at present, the primary goal of the current study was to conduct a secondary analysis of qualitative data to explore YAs' knowledge, motivations, and experiences related to T-breaks to develop a deeper, more nuanced understanding of this phenomenon. Additionally, given a recent push for researchers to incorporate feedback from people with lived experience into substance use research, including the development and understanding of substance-related terminology (e.g., Knopf, 2023), we explored YAs' personal definitions of T-breaks and used these definitions to inform and operationalize T-breaks. Although the definition developed by Ansell and colleagues (2023) was a critical first step toward understanding the initial risks and benefits of T-breaks, it remains unclear the extent to which this definition aligns with various ways in which YAs conceptualize T-breaks, which is important for informing theory, future research, and prevention and intervention efforts.

Study 1 used qualitative data from individual interviews (N = 15 YAs who engaged in cannabis use 2-3x/week in the past month) to assess YAs' knowledge of and experiences with T-breaks. Given so little is known about YA experiences with T-breaks, the overall purpose of Study 1 was to gain a general understanding of T-break experiences among YAs. Study 2 included qualitative and descriptive data from an online survey conducted with 66 YAs who engaged in cannabis use 2-3x/week in the past month. Study 2 expanded upon Study 1 by using qualitative open-response data specifically to establish YAs' personal definition of T-breaks and identify common T-break motives. Descriptive statistical analyses were conducted to assess the frequency/prevalence of cannabis use, familiarity with T-breaks, and the number of times participants took a T-break in the past year.

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METHODS

Participants and Procedures

Participants were recruited after completing all study procedures for another research study on regular cannabis use and cannabis behaviors among young adults. Thirty individuals were invited via phone and email to participate in the current study. All participants were recruited from Washington, a state in which both medical and recreational cannabis is legal for adults 21 years and older. Study-specific procedures are described below. Procedures were approved by the institution's Institutional Review Board.

Study 1: Individual Interviews.

Study 1 involved an individual interview about participants' thoughts and experiences with completing the EMA questionnaires (primary aim) and their cannabis use behaviors, including T-breaks (secondary aim). Interested participants provided oral informed consent over the phone with study staff and scheduled a 60-minute audio-recorded virtual interview via Zoom. Interviews were conducted by the first author, a female clinical psychologist with experience in qualitative methods and substance use-related research and clinical work. Participants were paid $20 for their time. Data collection continued until saturation was reached for the primary aim of the present study (i.e., no new themes were identified in subsequent interviews).

Participants (N = 15) were 22.3 years old (SD = 3.5, range 18-27) and used cannabis at least 2-3x/week in the past month. On average, 53.3% (n = 8) reported using cannabis daily or more. The sample was 60.0% White (n = 9), 20.0% multi-racial (n = 3), 13.3% Asian (n = 2), and 6.7% Black or African American (n = 1); 20.0% identified as Hispanic/Latinx (n = 3). Participants described their gender identity as woman/female (53.3%; n = 8), man/male (26.7%; n = 4), and transgender/gender non-conforming (20.0%; n = 3). Over two-thirds (66.6%; n = 10) self-identified as sexual minoritized (e.g., asexual, bisexual, gay, queer).

Study 2: Online Survey Open Responses.

Study 2 involved a second 7-day EMA study on affect and cannabis use behaviors. Eligibility criteria for Study 2 included being ages 18-29 and using cannabis at least 2-3x/week in the past month. Participants who completed the qualitative interview for Study 1 were not eligible for Study 2. Interested participants provided informed consent electronically before starting the EMA protocol, which involved a baseline

survey, EMA surveys 4 times per day for 7 days (possible total of 28 EMA surveys), and an immediate follow-up on day 8. Four items assessing T-break familiarity, personal definitions (open-ended), experiences, and motives (open-ended) to take a T-break were included in the follow-up survey. All assessments were online. Participants were compensated up to $170 for Study 2.

Participants (N = 66) were 23.7 years old (SD = 3.1, range 19-29); 75.8% (n = 50) used cannabis four or more times a week in the past month. The sample was 62.1% White (n = 41), 16.7% Asian (n = 11), 10.6% multi-racial (n = 7), 7.6% Black/African American (n = 5), 1.5% American Indian/Alaskan Native (n = 1), and 1.5% Native Hawaiian/Other Pacific Islander (n = 1). Participants described their gender identity as woman/female (54.5%; n = 36), man/male (39.4%; n = 26), or another way (6.1%; e.g., non-binary; n = 4). Over half of the sample (60.6%; n = 40) self-identified as sexual minoritized.

Data Collection

Study 1: Individual interviews.

Semi-structured interviews were conducted virtually from November to December 2022. The general question prompt about T-breaks was "What experience do you have taking tolerance breaks or T-breaks from cannabis, if any?" If participants endorsed experience with or awareness of T-breaks, they were asked additional follow-up questions, such as describing their knowledge about T-breaks and their personal experiences, reasons for taking a T-break, and positive and negative consequences of T-breaks. Follow-up questions varied across interviews. To encourage participants to speak openly and provide clarification on their thoughts, opinions, and experiences, reflections were used as well as probing with follow-up questions (Corbin & Strauss, 2008). Interviews were audio recorded and transcribed by trained research staff.

Study 2: Online survey open responses.

In July 2023, 66 participants completed the follow-up survey, which included four T-break items. First, participants were rated "How familiar are you with the concept of tolerance breaks (or 'T-Breaks') from cannabis?" from 0 = *not at all* to 4 = *extremely* scale. If participants endorsed familiarity with T-breaks, they were asked to indicate the number of times they have taken a T-break in the past year. Response options were 0 *= 0 times*, 1 *=1-3 times*, 2 *= 4-6 times*, 3 *= 7-9 times*, 4 *= 10-12 times*, and 5 *= more than 12 times*. Participants familiar with T-breaks were asked to write a few sentences in their own words discussing their personal definition of a tolerance break from cannabis and reasons why people might take a T-break.

Data Analytic Strategy

For both studies, qualitative data were analyzed using Braun and Clarke's six-step framework for thematic analysis: familiarization of data, generation of codes, combining codes into themes, reviewing themes, determining the significance of themes, and reporting of findings (Braun & Clarke, 2006). This approach was chosen because it is flexible, inductive, allows for iterative refinement of themes, and can be applied to the different types of qualitative data used in this study (i.e., interviews, brief open-response survey items).

Before reviewing the data, two primary reviewers (KWD and EGD) discussed potential personal sources of bias to increase awareness and reduce the impact of personal perspectives on data analysis. Identified sources of potential bias included engagement in cannabis-related research (KWD and EGD) and clinical work (KWD), as well as exposure to YA cannabis behaviors such as T-breaks through peer and patient/client interactions and online articles (KWD and EGD). Additionally, we broadly anticipated that tolerance would be a commonly endorsed motive for taking a T-break, given that it is included in the name of the term, and tolerance was often discussed in online articles about this topic.

The reviewers independently read and re-read the transcribed interviews (Study 1) or open-responses (Study 2) to become familiar with the data and generated the initial codes (i.e., a way to organize data into meaningful groups); given the limited empirical data on T-breaks, coding was

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data-driven rather than theory-driven. Next, KWD and EGD independently combined the codes into broader themes and met to review the themes, make changes as needed, and discuss theme significance. Any discrepancies were resolved through majority consensus and discussion with other co-authors (CML, JAB, JRK, SG, TJKF). For the quotes presented below, minor changes were made to improve readability (e.g., removed filler words such as "um") without changing the content. We followed standard recommendations for reporting qualitative research (Tong et al., 2007); see Supplementary Table 1 for the consolidated criteria for reporting qualitative research (COREQ) checklist.

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RESULTS

Study 1: Individual Interviews

Qualitative analyses revealed five broader themes; each theme is detailed below.

Theme 1: The Time Frame for T-breaks Varied but was Typically Unplanned, Brief, and Temporary.

Participants described varying time frames for abstinence breaks from cannabis (i.e., a few hours to multiple weeks). Shorter breaks that lasted for a few days were most common, and participants endorsed taking multiple T-breaks. For instance, one participant (21 years old, woman/female) described their T-break experience as variable, *"I try to do at least a few days of not using it [cannabis] at all. And when - usually when I get on a roll of, like, a couple of days, it's easier to go longer without it. So, between, a couple of days, and a week or two."* Another participant (25 years old, woman/female) described their T-break timeline as both variable and frequently occurring, *"Yeah, I do tend to take breaks. I--kind of depending on like the context, or how things have been going--switch between taking like a week to 2 weeks break every 6 weeks, or taking like 2 to 3 days off every 2 or 3 weeks…In the past year I have probably taken...jeez, probably 10 to 15 breaks, I would say."* A few participants reported no personal experience with T-breaks but had familiarity with the concept.

The length of a T-break was determined by different situational factors (e.g., upcoming social plans, tests/exams) and was typically unplanned and flexible based on the circumstances. Participants indicated intentions to return to using cannabis after the break, which differentiates T-breaks from quit attempts and other attempts to otherwise reduce their use. One participant (26 years old, man/male) explained, *"I don't think I ever am like, 'I'm done with the T-break.'…Now, it's like, I'll choose not to smoke for a couple of weeks and try to be productive, and then one night I'll be like, 'eh, f*** it,' and then the next 3-4 days, I'll be smoking anyway, because why not?"*

Theme 2: Reducing Tolerance Was a Common Motivation for Taking T-breaks.

YAs who engaged in heavy and frequent cannabis use reported wanting to take a T-break to reduce tolerance. Many YAs took T-breaks because they believed that temporarily abstaining would reduce tolerance so they could consume less post-break – *"Certainly tolerance [is a motivator to take a T-break], I noticed that when I do not take breaks it takes more cannabis to achieve the same result"* (25 years old, woman/female) – and/or achieve "a better high" after the break – "*Honestly, something that motivates me for a tolerance break, is the day I smoke again, because then it's gonna hit stronger"* (19 years old, woman/female). One participant who did not have personal experience with T-breaks described how friends take T-breaks to get a more intense high (19 years old, non-binary), *"A lot of my friends will take T-breaks if they're waiting for a special event and then they're gonna get really high."*

Theme 3: YAs Also Reported Other Concurrent Motives for T-breaks, Which Varied Widely.

Extrinsic Motivators. In addition to reducing tolerance, participants described taking T-breaks for various extrinsic reasons. Common extrinsic motivators included:

1. Saving money. For instance, one participant (27 years old, male/man) explained taking a T-break due to concerns that cannabis was interfering with their ability to pay for basic

needs. "*I feel like a lot of times when I take tolerance breaks, it wasn't necessarily because my tolerance had gotten so high but because I noticed I've been spending far too much money… I'm like, 'okay, okay, I gotta chill, I'm cutting into how much money I have for rent now.' I have to make sure I pay the bills. I can't be going that hard in it."*

2. Physical health concerns (e.g., being sick, lung health). As an example, one participant (19 years old, non-binary) had no personal experience with T-breaks, but described that one motivation for a T-break would be to reduce concerns about negative physical impacts of smoking: *"I know that there are negative health effects to inhaling smoke, and I'm doing that. But I guess more physical harm [would be a motivation for taking a T-break]. Physical health, I am really overly aware of."*
3. Mental health concerns. For example, one participant (19 years old, man/male) was motivated to due to concerns about anxiety, *"[I took a T-break] because I was feeling more anxious with smoking. So, I wanted to, you know, not smoke for a bit, and see if it helped."*
4. School or work responsibilities. Several participants described stopping cannabis to help achieve practical goals, like passing a class before finals. One participant (26 years old, man/male) stated trying T-breaks around times of the school year of high importance, "*I mean, definitely in the past, I've done that, like a very purposeful, zen T-break: 'I'm gonna go work until this class is over, get my final done.'…[I took T-breaks] in school, just anytime I was taking an important class, or before finals."*
5. Accessibility issues (e.g., being in a state or country where cannabis is illegal). Numerous participants described taking circumstantial T-breaks based on physical location and accessibility (e.g., 19 years old, woman/female: *"I actually am going to go on a tolerance break soon. I will be studying abroad...And weed is not allowed in Japan. So, I will be on a break."*). Another participant (26 years old, woman/female) described taking a break circumstantially based on location and who they are with, *"[I take T-breaks] circumstantially. If I'm going to a work conference for multiple days, in different locations. It's more situational, or location based...I've taken pauses for weekends or a couple of days here and there, one: because mostly I just don't think about it. Or two: really circumstantially of what I have to do, and where I'm at, or I'm staying with my grandma for a week. I'm not gonna be taking a bong rip in the bathroom."*

Intrinsic motivators. Participants also reported being intrinsically motivated to take T-breaks. Participants reported wanting to be in control of their cannabis use, indicating that intrinsic motivation is an important factor in deciding to take T-breaks. A few participants used T-breaks as a time to reevaluate their "relationship with cannabis" and themselves. For instance, one participant (20 years old, trans man), described using a break to reconsider how their current cannabis use is impacting their life: *"I think, with a break, especially from where I'm coming from right now from smoking every day, I think that it's a time to get information to assess yourself, and consider how you're using cannabis, and what that does. [One motivation for taking a T-break is] being more in touch with who I am without the effects of marijuana. And, I think, it's good to have control over it."*

YAs also indicated that they are motivated to modify or pause their cannabis use to "test" whether they are dependent on cannabis and viewed one's ability to take a T-break as reassurance that they were not addicted. One person (25 years old, woman/female) stated concerns with addiction due to family history and took T-breaks in part to mitigate these concerns, *"[I take T-breaks] because I have a genetic history of addiction in my family—that is something that I try to be cognizant of, my ability to stop using."* Later in the interview, they explained that the ability to take breaks is an important personal indicator of a positive relationship with cannabis, *"I do just value knowing that my relationship with it [cannabis] is such that I can sort of take those breaks and just assess where I'm at with it."* Similarly, after describing a period of time when they were *"severely abusing cannabis"* and would take risks to use cannabis (e.g., transporting cannabis into non-legal states) another participant (26 years old, woman/female) stated

that their *"relationship with cannabis has changed as I've have gotten older and kind of mellowed out a little bit in other ways,"* as indicated by their perceived ability to take T-breaks.

Theme 4: Withdrawal Symptoms Were Barriers to Maintaining a Break While Positive Consequences of T-breaks Typically Appeared Later On.

Participant responses indicate that T-breaks are highly individualized experiences. Various negative consequences were described, typically occurring during the beginning of a break. Similar to other participants, one individual (26 years old, man/male) indicated craving, sleep, and physical issues can be challenges when starting a break, *"I mean, everybody gets a craving every now and then, I don't think it's nearly as bad for me, as some of my friends, but it can still be hard…especially if you've been smoking for a while, starting a T-break can get a little wonky- all sorts of stuff, sleep and acne, and who knows what else."* Another (25 year old, woman/female) reported that T-breaks *"made my nightmares a lot worse, and so I would have to take extra precautions before sleeping, like really trying to calm down my nervous system before falling asleep."* Interestingly, despite participants often describing withdrawal symptoms, no participants ever used the term "withdrawal."

Some participants saw the impact of mental health as a considerable barrier to initiating or maintaining a T-break, with many participants voicing concerns that temporarily abstaining could harm their mental health. One participant (26 years old, woman/female) described feeling like their mental health will never be as good when not using cannabis, *"[During a T-break] I didn't ever really feel a sense of peace really, which is kind of sad. Like accepting that I will never be as relaxed as when I'm able to use cannabis, just because my anxiety is so bad."* Another (19 years old, woman/female) highlighted both irritability and anxiety as barriers, *"So that can be frustrating, too, feeling like, 'oh, if I don't smoke, I might be irritable today.' So it can be hard relying on it every single day…because I know that if I don't smoke, I'm probably gonna be anxious or really irritable."*

Similarly, participants chose not to attempt or continue T-breaks during periods of high stress/anxiety as participants often used cannabis to cope with stress or poor mental health, and were unsure of other effective coping strategies to get through a difficult time, *"If I go through a really bad moment, I might feel the need to use weed again, as a way to help me get through it, like get through things. I'd have to find something else that I can use as a crutch. It's definitely not healthy to make one thing a crutch for your emotions, I think. But, with weed, since it's just kind of there, and it works, it's just really easy to self-medicate with it. So, not being able to self-medicate would be kind of like, 'What do I do then?'"* (19 years old, woman/female).

After the initial discomfort of the T-break, participants described numerous perceived health benefits, including feeling more clear-headed, improved mood, improved ease with exercising, and overall physical health – e.g., *"Well once you get past all those things [participant mentioned perceived negative effects from a T-break, specifically increased anxiety, decreased motivation, low appetite] then probably you'd be back to being a normal, functioning human. And, probably better- unless I was taking edibles, if I was just smoking-probably better lung health, physical benefits like being able to breathe or just being able to do cardio better, more like physical stuff, I'd say, is a benefit. Maybe saving money, since you're not buying weed. Maybe, once you pass the negatives, the improvements in mood and maybe you get your motivation back, I'm not sure. Mostly the mental stuff, I feel like, is negative when you go on a T-break, until you get past it. But physically, it improves. And it does the opposite when you smoke a lot"* (18 years old, trans man).

Similarly, another participant (22 years old, woman/female) noticed longer breaks optimized benefits, *"The longest break I've had was a couple of weeks and I kind of noticed that I was able to think better and feel more sure about how I was feeling. It didn't just feel muddled. In the shorter breaks, I don't think I notice that, but that long one that I took- or the longest one I took- for sure, I could notice that."* Although one individual (19 years old, woman/female) initially voiced concerns about negative impacts on mental health, they recognized that it would likely be temporary and

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improve, *"I think at first, I would be a lot more irritable, a lot more anxious, but I think over time, I would actually have a lot less anxiety, just because I wouldn't have to kind of always have the anxiety of keeping up on my smoking habits to not have the anxiety, which helps a lot, so, I think I'd be a lot less anxious."*

Other participants, however, did not notice any improvements or benefits during their T-breaks. A particpant (26 years old, woman/female) voiced challenges to continuing a T-break, due to difficulty continuing the break when experiencing withdrawal, *"Even after those 11 days [of a T-break], it was still pretty bad honestly. Even with drinking water and exercising and doing all the other things to make myself feel better, I wasn't craving it like, 'I need it.' But like man, this would be really good right about now."*

Theme 5: The Main Reasons for Not Taking a T-Break Were Believing T-Breaks Were Unnecessary or Unachievable

Several participants reported being unconcerned by their current cannabis use, and therefore viewed T-breaks as unnecessary. Participants used several factors to gauge whether a T-break might be beneficial, including frequency of use, perceived personal relationship with cannabis, and whether cannabis use felt like a "choice" (i.e., indicative of having a positive relationship with cannabis) or a "need" (i.e., indicative of dependence/addiction). One participant (19 years old, man/male) expanded upon why T-breaks are unnecessary for him: *"Weed's never been that much of an 'I need to do it' type of thing. I enjoy it, that's why I do it so often. But it is one thing that I feel pretty confident that I could just give up, if I wanted to. I couldn't say the same for nicotine, or probably even alcohol, but weed's the one thing where I feel like I have a good relationship with it, at least for the past long while, you know. It's not the best relationship but…[participant trailed off]."* Another (26 years old, woman/female) echoed the sentiment of enjoying cannabis as part of their routine and confidence in her ability to take a break as reasons she thought a T-break was unnecessary, *"But, for me, it's [using cannabis] kind of became a part of my routine, and I really like it. I know that I could [take a break], if I didn't want to continue using anymore, but, for me it's just not a priority."* Some participants indicated no current desire to change their current use patterns as their reason for not taking a break, *"I'm just not trying to change or think about it [my use]. That's just my personal current mindset"* (19 years old, non-binary).

Certain psychosocial and contextual factors made T-breaks seem unachievable, such as having difficulty pausing cannabis use when their friends and partners are also using frequently, financial limitations to pursue other activities, because it is easily available, and perceived ability to take a break. One individual (19 years old, woman/female) captured many of the reasons YAs did not want to take a T-break, despite desiring to do so – *"I definitely have wanted to [take a T-break], but it's hard for me because all of my friends smoke, too, so it's like, anytime I'm really hanging out with anyone, and there's definitely the social aspect, too. I feel like any time I'm hanging out with people, we're all smoking. So, it's hard to kind of get out of that. Especially where we live, too. There's just kind of really easy access to weed here in Washington, obviously, we just have a lot of it here. So, it can be hard because, even though I've wanted to take breaks, I don't think I've ever really felt like I've been fully capable of taking a break…"* This participant went on to describe the importance of cannabis in their current routine, and lack of other options due to financial limitations, *"I know it's one thing that I know isn't going to change [using cannabis], and is one thing that's kind of always going to be there in my routine- and I think of replacing that with something else is nice, because I need something that's gonna have the same normalcy, and give me the same expected relief from everything, where I know that I'm just gonna have it. Like, something like a class, or some kind of extracurricular thing would do, but it's just really hard, feeling like I don't have the money."*

Study 2: Online Survey Responses

T-Break Familiarity and Experience

Nearly all participants (93.9%; n = 62) reported familiarity with T-breaks (42.4% extremely familiar, 33.3% very, 12.1% moderately, 6.1% slightly). Among those familiar

with T-breaks (n = 62), 6.1% of participants (n = 10) reported not taking a T-break the past year, 56.5% reported taking a T-break 1-3 times, 15.1% 4-6 times, 8.1% 7-9 times, and 3.2% 10 or more times.

Themes Based on Open-Text Responses

Three major themes were identified using the open-text responses asking participants to reflect on their personal definitions of a T-break and reasons people might take a T-break.

Theme 1: YAs Define T-Breaks as an Intentional Break From Cannabis Use, With the Most Common Motivation Being to Reduce Tolerance

When asked to briefly define T-breaks, participants most commonly reported that T-breaks are temporary abstinence breaks from cannabis to lower tolerance (74.2%; n = 49). Participants reported a desire to reduce tolerance for several reasons, including being able to smoke/consume less cannabis, achieve the original effects they got from when they first used cannabis, save money by using less cannabis, and/or get a "better high." Similar to Study 1, participants gave varied responses for the amount of time that a T-break might last, with answers ranging from 1-2 days to a few weeks or months.

- *"Giving up weed to lower/reset your tolerance so you don't need as much weed to get high."*
- *"Stopping using cannabis for a time specifically to reduce tolerance so less cannabis is more effective. Usually takes a month or so for full effect (at least for heavy users like me)"*
- *"The longer you've used weed on consecutive days, the higher your tolerance becomes. To keep your tolerance on the lower side (and cheaper side) you need to take days off to stay balanced."*
- *"People that smoke habitually, such as myself, often find themselves' 'smoking more and feeling less;' and a t-break is a good way to refresh and let your system clear out so that you can actually receive/process the molecules associated with 'being high.'"*

Theme 3: Intrinsic Motivations for T-Breaks Were Less Commonly Endorsed

Participants also reported various intrinsic motivations for T-breaks (i.e., inherently satisfying or personally rewarding reasons and/or re-evaluating the role of cannabis in one's life; 24.2%; n = 16). Several participants reported that they take T-breaks to prove to themselves and others that they are capable of being in control of their cannabis use. Others mentioned that they might take a T-break when they realize that cannabis is playing too much of a factor in their decision-making and other areas of their lives.

- *"Feeling bogged down by weed."*
- *"Don't want to have to factor weed into all decision making and living life."*
- *"Realizing that your cannabis consumption is impacting other areas of your life."*
- *"To show yourself/others your self-control."*
- *"To focus more on my life"*
- *"When you start feeling bad about how much you use cannabis"*

Theme 4: T-Breaks are Motivated by Multiple Reasons Beyond Reducing Tolerance Alone

Few participants (12.1%; n = 8) listed tolerance as the sole motivation for a T-break. Approximately 16.6% (n = 11) of participants did not list tolerance as motivation for taking a T-break. Most participants (71.3%; n = 47) listed that they were motivated by tolerance plus some other intrinsic or extrinsic reason. One participant captures this sentiment in their personal p of a T-break:

- "*Intentionally going some set of time without using cannabis. Some people do it so that when they start using again their high is better or it takes less cannabis to get high, but I think it could be for any reason.*"

DISCUSSION

The present study adds to the limited literature on T-breaks from cannabis and is the first known study to qualitatively investigate T-

breaks among YAs. The overall purpose of Study 1 (qualitative interviews) was to gain a general understanding of T-break experiences among YAs, whereas Study 2 (online open-responses) expanded upon Study 1 to establish YAs' personal definition of T-breaks and identify common T-break motives. Themes from both studies were used to inform an operational definition of T-breaks. We discuss our findings in each of these areas in more detail below.

T-Break Experiences Among YAs are Frequent, Brief, and Unplanned

The vast majority of YAs in both of our samples were familiar with the concept of T-breaks and took T-breaks in the past year - often multiple times. Across both studies, typical T-breaks ranged from a few hours to several weeks or months and breaks were variable, unplanned, and often brief. These themes are in line with prior work finding that individuals who use cannabis often make short, repeated, and unsuccessful reduction or quit attempts (Hughes et al., 2016). Withdrawal symptoms (e.g., craving, appetite and sleep disturbance, anxiety and mood changes) or fear of withdrawal symptoms may contribute to YAs taking short, repeated, and unplanned breaks. In Sample 1, feared or experienced withdrawal symptoms were reported as the main barriers to initiating or maintaining T-breaks. Importantly, none of the YAs used the word "withdrawal" to describe these experiences, which may indicate a general lack of knowledge about withdrawal or may be due in part to low perceived risk of experiencing withdrawal from cannabis (Smith-LeCavalier et al., 2024). Psychoeducation and learning skills to manage withdrawal symptoms may help YAs extend T-breaks for longer periods and increase the likelihood of experiencing benefits.

Setting breaks in advance and for a particular length of time could also help YAs experience more benefits from breaks. In Study 1, one of the themes that emerged was that experienced benefits of T-breaks tended to appear with longer breaks. This is in line with temporary abstinence findings from the alcohol literature ("Dry January"), such that people who complete a month-long abstinence challenge from alcohol report significantly more abstinence-related benefits compared to individuals who lapse before 30 days (De Visser & Nicholls, 2020; De Visser & Piper, 2020). Thus, YAs may benefit from setting a specific goal that is at a minimum, beyond the typical peak of withdrawal from cannabis (i.e., 5-7 days) and could benefit from resources/intervention to support them in taking longer breaks. Further research is needed to identify the optimal, evidence-informed length of a T-break to reach beneficial outcomes, which could vary based on an individual's unique desired outcome (e.g., a few weeks to reduce tolerance versus a few months to "reset one's relationship" with cannabis use).

A Proposed Definition of a T-Break, Guided by People Who Take Them

In both studies, the primary motivation for T-breaks was to reduce tolerance. Although reducing tolerance was a common reason for taking a T-break in both studies, findings from Study 2, in particular, demonstrated that participants reported various other concurrent motives for T-breaks. This suggests that YAs conceptualize T-breaks to include multiple motives and more broadly than prior research, which separated tolerance reduction motives from other types of motives (Ansell et al., 2023).

Unlike quit attempts, permanent abstinence was not the goal for T-breaks, as most YAs intended to return to using cannabis post-break. Further, T-breaks were often viewed as a way for individuals to evaluate their relationship with cannabis use to reform their use practices in the future. Unlike reduction attempts, during which an individual aims to reduce or moderate their use, the goal of a T-break was to stop using cannabis entirely (even if temporarily or for brief periods). In line with the broader findings from this qualitative analysis, we propose that a T-break is "an intentional and temporary period of abstinence from cannabis, regardless of motivation." Furthermore, although "tolerance breaks" may occur without a desire to reduce tolerance as demonstrated in Study 2, this seems to be a commonly accepted term to capture different types of use breaks for YAs who use cannabis.

Motives for T-Breaks are Multifaceted

Other non-tolerance reasons for T-breaks were mostly extrinsic (e.g., saving money, reducing use around important school or work events, reducing negative physical effects, like difficulty breathing). Interestingly, some participants used T-breaks as a "test" of addiction or dependence, with the ability to take a break serving as "proof" that someone is not addicted or dependent on cannabis. Intrinsic reasons for temporary abstinence (e.g., self-control, wanting to avoid cannabis negatively impacting one's life) were less commonly endorsed among this group of YAs. Ways to promote or increase intrinsic motivation may be one way to increase benefits from T-breaks, as research and theory suggest that greater intrinsic motivation is associated with a greater likelihood of considering, initiating, and maintaining changes in substance use behaviors (DiClemente, 1999; Downey et al., 2001).

While we presented tolerance and other motives as separate themes, the motive of reducing tolerance was often enmeshed and discussed along with other motives for temporary abstinence. So, although tolerance was a common motive, it typically was not a standalone motive. This point is further supported by one participant's response from Study 2: *"It is a conscious break of smoking weed to lower your tolerance. Often coupled with some other reason for stopping smoking."* Moreover, there was noticeable heterogeneity in people's motivation for reducing tolerance (e.g., reducing tolerance will help them use less to save money, get more high, worried about tolerance). Taking a T-break to reduce tolerance specifically to get more high or intoxicated may make it more likely that YAs use more cannabis or become more intoxicated post-break, but it is in accordance with their goal. Therefore, broadly, reducing tolerance may not be concerning, but rather *why* someone wants to reduce their tolerance.

Clinical Implications

The present study highlights clear opportunities to correct misconceptions about cannabis use and related risks, including addiction potential, cannabis withdrawal, and CUD. It is noteworthy that several participants reported using T-breaks as a "test" of addiction; of course, the presence of tolerance is one of the criteria associated with a diagnosis of CUD. This highlights the possible need to provide prevention or intervention content about what it means to "be addicted" to cannabis and why tolerance could be a risk factor for CUD. In fact, as noted above, a barrier to stopping cannabis use, even temporarily, was fear of unwanted symptoms emerging (including depressed mood, anxiety, sleep difficulty, headaches, etc.). These are symptoms associated with cannabis withdrawal (also one of the criteria associated with cannabis use disorder), yet this was not a term used by participants. Legitimizing CUD and its worthiness of recovery support or treatment could even boost help-seeking by those struggling with their cannabis use. Even screening for CUD can could be used as an opportunity for patient or client psychoeducation.

Some YAs mentioned family history of addiction as a reason to take a T-break. It is possible that this represents contemplation of change and, within a motivational enhancement framework, an opportunity to elicit personally relevant reasons to change (e.g., not using cannabis to the degree that CUD is a risk). Lee and colleagues (2010) showed promising findings of a web-based personalized feedback intervention for those with a family history of addiction, so there are opportunities to "meet individuals where they are" in terms of their concern about substance use.

Despite interest in taking T-breaks, many YAs were concerned about negative mental health impacts and struggled to cope with withdrawal symptoms. Indeed, some viewed T-breaks as an unachievable goal. In combination with prior work demonstrating escalations in use post-T-break (Ansell et al., 2023), findings from the present study suggest that easily accessible and evidence-informed T-break interventions are needed to replace advice from online forums or websites. For instance, the publicly accessible 21-day T-break Guide (Fontana et al., 2023), which aims to support YAs taking a T-break by providing daily relapse prevention skills and psychoeducation, demonstrated feasibility and initial efficacy in a small pilot study (Fontana et al., 2023). Two-thirds of YAs (64%) used the Guide during the intervention period, and those who used the Guide "a lot" were significantly more

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likely to complete a 21-day break compared to those who used the Guide "some" or "not at all" (Fontana et al., 2023). As participants in our study commonly reported that taking a T-break would be difficult due to withdrawal, social influence, or routine disruption, including skills to plan for and manage these concerns could be especially useful to support and encourage behavioral change among YAs attempting a T-break.

Limitations and Future Directions

There were several limitations to the present study. Questions about temporary abstinence were secondary to the primary aims of the overall study; thus, other important factors were not assessed, including the types of resources YAs seek to support T-breaks, or ways in which T-breaks impact motivation or self-efficacy to change. These variables may be particularly important to understand, as temporary abstinence in the tobacco/nicotine "practice quit attempt" literature appears to increase motivation and self-effiacy, particularly for those who are in pre-contemplation or who are not interested or ready for more permanent change (Keizer et al., 2016, 2020).

Study 2 used open responses collected online and thus may be limited in depth, given the inability to probe for clarity. Further research is needed to more thoroughly understand T-break motivations. Additionally, we did not assess whether participants primarily used cannabis for medical or recreational reasons. As such, it is possible that YAs who use cannabis for medical purposes may have different motivations for and experiences with temporary abstinence. Future prospective, daily-level, and intervention studies are needed to characterize ways in which psychosocial factors, like initial motivations, influence T-break initiation, time course, and outcomes, and how they change over time and through intervention.

Two-thirds of Sample 1 and 60% of Sample 2 identified as sexual minoritized, which is consistent with higher prevalence rates of cannabis use, including daily or near daily use, among sexual minoritized individuals compared to their heterosexual peers (e.g., Dyar, 2022; Mauro et al., 2022) as well as the study that served as our recruitment source. Although we view the diverse representation of YAs as a strength of the present study, future work may want to explore possible similarities and differences between sexual minoritized and heterosexual YAs' T-break experiences and motives.

Conclusions

Despite these limitations, this study is the first to our knowledge to use qualitative methods to gain a better understanding of T-breaks from cannabis among YAs who engage in frequent, heavy use. Even though YAs tend to have a low desire to quit cannabis entirely, the prevalence of T-breaks among our sample indicates that YAs are interested in changing or moderating their use, at least temporarily. Further, YAs were motivated to take breaks to reduce their tolerance and for various other extrinsic and intrinsic reasons. Breaks tended to be short-lived, unplanned, and were often terminated prematurely due to difficulty managing withdrawal symptoms. Not all participants believed that T-breaks were necessary given their content and satisfaction with current use patterns. Much more research is needed to understand how temporary abstinence impacts cannabis use outcomes among YAs.

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